

IN THE DRAWINGS:

Fig. 2 has been amended to show the center of curvature 10 for the shaft projection 5. Fig. 2 has also been amended to show the centers 11 of curvature for the circular segment shapes of the depressions 9. Original sheet 1 of the drawings has been amended to place Fig. 1 on its own sheet with Fig. 2 being on a separate sheet.

### REMARKS

The specification, drawings and claims have been amended to improve the style of this application. Claims 1, 3 and 7 have been amended, and new claims 18 - 32 have been added.

In particular the specification has been amended to describe the embodiments of claims 8 and 9. The specification has also been amended to further describe the curves of Fig. 2. Fig. 2 has been amended to show where the centers of curvature for the different curves of original Fig. 2 are located. As one can see from the original Fig. 2, the curves for the outside of the shaft projection 5 have a different shape than the curves for the depressions 9. Because these curves are different, these curves will have different centers of curvature. The shaft projection 5 is substantially round, and therefore the center of curvature of the projection will be in the center. Since the curves for the depressions 9 are different, their centers of curvature will not be in the center of the projection 5 and are therefore spaced from the center. New independent claim 27 has been added to set forth how the centers of curvature for the depressions 9 and the cross-section of the projection relate to each other. In particular claim 27 sets forth that the center of curvature for the depressions is spaced from the center of curvature for the cross-section.

Original claim 7 had been rejected as being anticipated by Nishikawa.

Applicant has reviewed Nishikawa and finds no teaching nor suggestion of depressions which have a center of curvature that is spaced from a center of a substantially round cross-section. Instead it appears that any depressions in Nishikawa are concentric with a round cross-section. Applicant notes in particular that circumferential indentations 25 of Nishikawa

appear to be concentric with the rod 11. Therefore the rod 11 and indentations 25 do not have the same relationship as the depressions and shaft projection of claim 27. These elements therefore cannot anticipate the shaft projection and depressions of claim 27. Applicant finds no other structure in Nishikawa which has all of the features of the projection and depressions of claim 27. Nishikawa therefore cannot anticipate claim 27.

Applicant further finds no suggestion or motivation to modify Nishikawa to have the center of curvature for the depressions be spaced from the center of curvature for a substantially round cross-section of a shaft projection. Therefore claim 27 cannot be obvious in view of Nishikawa.

Independent claims 1 and 4 have been rejected as being anticipated by Laue. Claim 27 sets forth that the depressions are arranged next to each other in the axial longitudinal direction of the shaft projection. Applicant does not find this feature in Laue, and therefore claim 27 cannot be anticipated by Laue.

Independent claim 7 has been amended to set forth the feature that the depressions or circle segment-like pattern has a center of curvature which is offset from a center of the substantially round cross-section. As described above, Applicant finds no teaching nor suggestion of this feature in Nishikawa, and therefore claim 7 also cannot be anticipated by Nishikawa.

Claims 18 and 28 set forth another plurality of depressions. In the embodiment of Fig. 2, one plurality of depressions is on the top of Fig. 2, and another plurality of depressions is on the bottom of Fig. 2. Claims 18 and 28 further set forth that the center of curvature for the

substantially round cross-section is between the centers of curvature for these two different pluralities of depressions or circular segments. Applicant finds no teaching nor suggestion in the prior art for the center of curvature for a projection to be between the center of curvature of two different pluralities of projections. These claims therefore further define over the prior art.

Claims 19 and 29 set forth that the center of curvature for one of the plurality of depressions is in between the center of curvature for the substantially round cross-section, and the outside of the projection. Applicant finds no teaching nor suggestion in the prior art of any such arrangement of centers of curvature, and therefore these claims further define over the prior art.

Applicant notes that the specific arrangement and shape of the curves as set forth in the above claims is an important feature of the present invention. By setting forth the relationship between the curves, as set forth in the claims, the press fitting of a hollow section on to the projection can secure the hollow section both axially and circumferentially. The different radiuses of curvature also help in the press fitting, in that the majority of the force can be applied at the top and bottom in Fig. 2 where the most deformation takes place. Also Applicant has found that the manufacturing of these different curves is simpler in design, and easier in operation than any of the more complicated shapes in the applied prior art, and it still gives sufficient strength in both the axial and circumferential directions. The specific arrangement of the curves in the above claims will therefore allow for a bearing housing which is stronger and/or more economical than the applied prior art.

Claim 1 has been amended to set forth that the groove profile is prepared by one of a forging operation and a shaping process which includes a casting operation. Claim 1 has been rejected as being anticipated by Laue. The rejection states that the patentability of a product claim is determined by the structure of the product, not the process limitations. Applicant notes that the courts have decided "it is well established that the product claims may include process steps to wholly or partially define the claim product". See *In Re Brown* 59 CCPA, 495 F.2d 531, 535, 173, USPQ 685, 688, (1972). The courts have also decided that "To the extent these process limitations distinguish the product over the prior art, they must be given the same consideration as to additional product characteristics". See *In Re Luck and Gainer* 177 USPQ 523, 525.

Applicant respectfully requests that the process limitations set forth in claim 1 for forming the groove profile be considered. Applicant notes that the way in which the groove profile is prepared, can alter the strength of the profile, and of the entire housing as a whole. Applicant has described in the specification that preparing the grooved profile by a machining operation has an unfavorable affect on the strength properties of the housing shaft projection, page 3 lines 1 - 3. In particular, machining creates a significant notch effect which weakens the housing. Preparing the groove profile by either forging or casting eliminates or significantly reduces the problems of the notch effect. Applicant notes that the forging or casting results in a material which has significantly different strength properties, and is therefore different structure. Applicant respectfully requests that this structure be appreciated and considered.

Applicant has reviewed the applied prior art of Laue and Nishikawa and finds no teaching nor suggestion of either a forging operation or a casting operation. Therefore the structure in these references do not have the same strength properties as the shaft projection set forth in claim 1. Claim 1 therefore cannot be anticipated by these references.

New claims 20, 24 and 30 set forth an annular receiving element connected to the shaft projection, with the shaft projection extending radially outward from one side of the annular receiving element. The embodiment of Fig. 1, the annular receiving element is shown by reference 3. These claims further set forth that the annular receiving element defines a through hole. In the embodiment of Fig. 1, this through hole is shown by reference numeral 4. Applicant has reviewed the prior art, and finds no teaching nor suggestion of this feature, especially in combination with the independent claims from which these claims depend. It is Applicant's position that these claims further define over the prior art.

If the Examiner has any comments or suggestions which would further favorable prosecution of this application, the Examiner is invited to contact Applicant's representative by telephone to discuss possible changes.

At this time Applicant respectfully requests reconsideration of this application, and based on the above amendments and remarks, respectfully solicits allowance of this application.

Respectfully submitted  
for Applicant,

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Enclosed: Petition for One Month Extension of Time

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